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Bentley  
12/9/99

above identified application is respectfully requested. For the Examiner's convenience, claims not amended by this action are presented in single-spaced, smaller typeface.

## AMENDMENT

Please amend the above-identified application as follows:

### IN THE CLAIMS:

Please **AMEND** Claims 1-4, 7, 10, 13, 16 and 19-21 as follows:

- B'
1. (Amended) A system for providing navigational instructions, the system comprising:
    - a communication port for receiving signals representing location information including a starting point and a destination point, and for transmitting the navigational instructions;
    - a storage device having stored therein geographical information, photographic information, route processing instructions and photograph matching instructions, the photographic information including representations of photographs of actual geographic locations and photograph orientation information, and the photograph matching instructions being instructions for matching a particular photograph with a corresponding geographic location; and
    - a processor, connected to said storage device and communicating therewith, for processing the location information and the geographical information in accordance with the route processing instructions to obtain a route for travel to the destination point, **[and]** for matching geographic locations along the route with representations of photographs thereof in accordance with the photograph matching instructions, and for orienting the representations of photographs based on the route for travel, thereby

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determining the navigational instructions for traveling the route including oriented representations of photographs,

wherein said processor outputs the navigational instructions using said communication port, thereby providing a user with directions for traveling the route and an oriented sequence of photographic representations of the geographic locations along the route.

2. (Amended) A method of providing navigational instructions, the method comprising [the steps of]:

providing a first database having geographical information;

providing a second database having photographic information including representations of photographs of actual geographic locations, the second database also providing orientation information associated with each of the representations of photographs;

matching each of the representations of photographs in the second database with the geographical information in the first database, so that a given photograph has associated therewith the geographical information regarding the location depicted in the photograph;

receiving location information including a starting point and a destination point;

processing the location information, the geographic information from the first database, [and] the photographic information from the second database, and the orientation information from the second database to determine a route for travel to the destination point;

generating navigational instructions for traveling the route including representations of photographs oriented based on the route for travel; and

outputting the navigational instructions and the photographic representations of geographic locations in an oriented sequence, thereby providing a

B'cont.

user with a sequence of navigational instructions and oriented photographic representations of geographic locations along the route.

3. (Amended) A computer readable medium in which is stored a first database having geographical information, a second database having photographic information including representations of photographs of actual geographic locations and orientation information depicting a cardinal orientation of each of the representations of photographs, and computer readable code to be executed by a computer, said computer readable code performing a method of providing navigational instructions, the method comprising [the steps of]:

matching each of a plurality of representations of photographs in the second database with the geographical information in the first database, so that a particular photograph has associated therewith the geographical information regarding the location depicted in the photograph;

receiving location information including a starting point and a destination point;  
processing the location information, the geographic information from the first database, the orientation information from the second database, and the photographic information from the second database to determine a route for travel to the destination point;

generating navigational instructions for traveling the route including representations of photographs, the representations of photographs selected based on the orientation information; and

outputting the navigational instructions and the photographic representations of geographic locations in an oriented sequence, thereby providing a user with an oriented sequence of navigational instructions and photographic representations of geographic locations along the route.

4. (Amended) A system comprising:

B<sup>1</sup> amended.

a communication port  
for transmitting signals representing location information including a  
starting point and a destination point, and  
for receiving navigational instructions that include directions for following a  
route from the starting point to the destination point and representations of photographs  
of geographic locations ~~along the route~~, the navigational instructions being received in a  
sequence in accordance with travel along the route, the representations of photographs  
being received oriented in accordance with a direction of travel along the route,  
an input device for inputting the location information;  
an output device for outputting the navigational instructions; and  
a processor  
for receiving the location information from said input device,  
for processing the location information for transmission by said  
communication port, and  
for processing the navigational instructions for output by said output  
device.

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5. A system according to claim 4, wherein said system is installed in a vehicle.
6. A system according to claim 4, further comprising a device for automatically determining the starting point.

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7. (Amended) A method of providing navigational instructions, the method comprising the [steps of]:  
inputting location information using an input device, the location information including a starting point and a destination point;  
transmitting signals representing the location information using a communication port;

11. A computer readable medium according to claim 10, wherein the navigational instructions are outputted to an operator of a vehicle.
12. A computer readable medium according to claim 10, wherein the starting point is automatically determined using a positioning device.

- B<sup>4</sup>
13. (Amended) A system for providing navigational instructions, the system comprising:
- a first device including a first communication port for receiving signals representing location information including
    - a starting point and
    - a destination point
  - and for transmitting the navigational instructions, the navigational instructions including directions for following a route from the starting point to the destination point and representations of photographs of geographic locations along the route, the navigational instructions being transmitted in a sequence in accordance with travel along the route,
  - a storage device having stored therein geographical information, photographic information, route processing instructions and photograph matching instructions, the photographic information including representations of photographs of actual geographic locations and photograph orientation information indicating an orientation of each photograph, and the photograph matching instructions being instructions for matching a particular photograph with a corresponding geographic location, and
  - a first processor, connected to said storage device and communicating therewith, for processing the location information and the geographical information in accordance with the route processing instructions to obtain a route for travel to the destination point, and for matching geographic locations along the route with representations of photographs thereof in accordance with the photograph matching instructions, and for selecting representations of photographs based on photograph orientation information

B2 amended.

receiving the navigational instructions using the communication port, the navigational instructions including directions for following a route from the starting point to the destination point and representations of photographs of geographic locations along the route, the navigational instructions being received in a sequence in accordance with travel along the route, the representations of photographs being received oriented in accordance with a direction of travel along the route; and outputting the navigational instructions.

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8. A method according to claim 7, wherein the navigational instructions are outputted to an operator of a vehicle.

9. A method according to claim 7, further comprising the step of automatically determining the starting point using a positioning device.

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10. (Amended) A computer readable medium in which is stored computer readable code to be executed by a computer, said computer readable code performing a method comprising the [steps of]:

receiving location information input from an input device, the location information including a starting point and a destination point;

transmitting signals representing the location information using a communication port;

receiving navigational instructions using the communication port, the navigational instructions including directions for following a route from the starting point to the destination point and representations of photographs of geographic locations along the route, the navigational instructions being received in a sequence in accordance with travel along the route, the representations of photographs being received oriented in accordance with a direction of travel along the route; and outputting the navigational instructions.

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B4 added.

and based on the route of travel thereby determining the navigational instructions for traveling the route including oriented representations of photographs; and

a second device including

a second communication port for transmitting the signals representing the location information, and for receiving the navigational instructions,

an input device for inputting the location information,

an output device for outputting the navigational instructions, and

a second processor for receiving the location information from said input device, for processing the location information for transmission by said second communication port, and for processing the navigational instructions for output by said output device.

14. A system according to claim 13, wherein said second device is installed in a vehicle.

15. A system according to claim 13, wherein said second device further includes a device for automatically determining the starting point.

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16. (Amended) A method of providing navigational instructions, the method comprising [the steps of]:

providing a first database having geographical information;

providing a second database having photographic information including representations of photographs of actual geographic locations, and orientation information for each representation of photographs;

matching each of the representations of photographs in the second database with the geographical information in the first database, so that a given photograph has associated therewith the geographical information regarding the location depicted in the photograph;

inputting location information using an input device, the location information including a starting point and a destination point;

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transmitting signals representing the location information to a processor using a communication port;

receiving the signals representing the location information for processing by the processor;

processing the location information, the geographic information from the first database, and the photographic information from the second database using the processor, to determine a route for travel to the destination point;

selecting representations of photographs from the matched representations of photographs based on the orientation information and the route for travel;

generating navigational instructions for traveling the route including oriented representations of photographs, to provide a user with a sequence of directions and oriented photographic representations of geographic locations along the route;

transmitting the navigational instructions;

receiving the navigational instructions using the communication port; and

outputting the navigational instructions in said sequence using an output device.

17. A method according to claim 16, wherein the navigational instructions are outputted to an operator of a vehicle.

18. A method according to claim 17, further comprising the step of automatically determining the starting point using a positioning device.

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19. (Amended) A system for providing navigational instructions, the system comprising:

a communications port for receiving location information, the location information including a starting point and a destination point, and for formatting the location information;



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a storage device having a database containing representations of photographs, photograph orientation information, and associated geographic data; and

a processor, connected to said communications port and to said storage device,

for

receiving the location information formatted by said communications port,

accessing the database to extract geographic data and representations of photographs associated therewith,

processing the geographic data and location information to generate a route for travel to the destination point,

assembling navigational instructions in a sequence for traveling the route, and

outputting the navigational instructions,

wherein the navigational instructions include representations of photographs of geographical locations along the route, oriented based on the photograph orientation information and the route for travel.

20. (Amended) A method of providing navigational instructions, the method comprising [the steps of]:

acquiring photographs of geographic locations;

associating with each of the photographs geographical information and orientation information regarding the location depicted in the photograph;

storing in a database a representation of each of the photographs and the geographical information and the orientation information associated therewith;

receiving location information, the location information including a starting point and a destination point;

accessing the database to extract geographical information, the orientation information, and representations of photographs associated therewith;

processing the geographical information and location information to generate a route for travel to the destination point;

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assembling navigational instructions in a sequence for traveling the route; and  
outputting the navigational instructions, wherein the navigational instructions  
include oriented representations of photographs of geographical locations along the  
route.

21. (Amended) A computer readable medium in which is stored a database having  
geographical information and photographic information, the photographic information  
including representations of photographs of geographic locations and associated  
geographical information and orientation information, and computer readable code to be  
executed by a computer, said computer readable code performing a method of  
providing navigational instructions, the method comprising [the steps of]:  
receiving location information, the location information including a starting point  
and a destination point;  
accessing the database to extract geographical information, orientation  
information, and representations of photographs associated therewith;  
processing the geographical information, orientation information, and location  
information to generate a route for travel to the destination point;  
assembling navigational instructions in a sequence for traveling the route; and  
outputting the navigational instructions,  
wherein the navigational instructions include oriented representations of  
photographs of geographical locations along the route.--